ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

CO-23 2008

Management of Collected Debris Following Severe Storm Events

Natural disasters often create a myriad of additional environmental problems that need to be addressed immediately as a part of clean-up efforts. The following information provides guidance for safely handling and disposing of most all of the debris and waste products generated during a disaster.

Types of Waste

Hazardous Waste. During a debris management crisis, owners are responsible for notifying the NHDES Spill Response and Complaint Investigation Section at (603) 271-3899 of spill releases that pose a potential threat to safety, health, and the environment.

Once identified by private owners or state and local officials, hazardous waste must be segregated from other disaster-generated waste, stored separately, and ultimately disposed of at a permitted commercial hazardous waste disposal facility out-of-state.

Testing can be helpful to determine if a waste is hazardous, but generators may use knowledge of the material to manage as hazardous waste without conducting analyses. These materials must be handled by New Hampshire licensed hazardous waste transporters and licensed spill response contractors.

If hazardous or unknown materials such as lead, PCBs, solvents, pesticides, herbicides, pool chemicals, industrial grade cleaning solutions, and other similar types of materials are discovered during a demolition or cleanup, the materials should be staged separately and with secondary containment to collect leaks and prevent further mixing with other hazardous waste or incompatible chemicals. If possible, the material should be segregated from the rest of the demolition and cleanup.

Oil Tanks and Propane Tanks. Oil tanks and propane tanks are frequently dislodged and moved considerable distances during floods and other disasters. When found they should be examined by trained personnel before removal. If oil tanks contain product they should be pumped out and removed by an oil remediation contractor, then handled through the scrap metal portion of the demolition debris waste stream.

Large propane tanks should be off-loaded and removed by the propane company that owns them or by a hazardous waste contractor. Smaller, 20 pound cylinders may be collected and staged at a central location. Once the remaining gas has been removed by a propane contractor the tanks can enter the scrap metal waste stream. The appendix contains a list of remediation contractors.

Vegetative Debris (or Green Waste). Vegetative debris consists of uprooted trees, broken tree limbs, stumps, brush, and leaves. Tree tops, limbs, saplings, and tree cuttings that are 5 inches in diameter or less can be burned, provided that a permit is obtained from the local fire warden in the town where the burning will occur. It is important to keep vegetative debris segregated from other debris because contamination with other materials limits the ways in which this debris can be managed. Placing vegetative waste in a landfill should be avoided. Contamination can be limited by using proper handling techniques. Pests that may infect the wood may restrict the shipment of these materials to other geographical areas. Consult with the state agricultural department for guidance on pests of concern in a specific geographical area, prior to shipment of the material to far away locations.

Vegetative debris also can be ground and used as mulch for residential, commercial, or agricultural areas, for producing compost, as landfill cover, and for boiler fuel. Whole trees, from both rural and urban areas, could also be used as a timber resource. Trees could be delimbed at storage sites prior to transporting them to end-users, such as sawmills, veneer or panel makers, pulp and paper mills, wood pellet mills, furniture makers, specialty wood companies, and engineered wood companies. Vegetative debris typically can be ground into mulch and reused. If the quantity of mulch exceeds typical usage, local planners may be able to identify large-scale landscaping opportunities that may be able to use the material, such as landscaping in parks and recreation areas, along roadsides or railways, amusement parks, or at temporary debris storage sites.

Vegetative Debris in Wetlands/Shorelands. Within the protected shoreland (reference line to 250 feet landward) downed and damaged trees and trees posing an imminent hazard or threat may be felled and removed. Stumps must be left intact for soil stabilization. Trees and debris can be removed from waterbodies. If equipment is necessary for removal of debris from waterbodies, monitor equipment for fluid leakage and use temporary work pads to lessen the impacts to the shoreline. Its recommended that homeowners take photographs of damaged trees and structures for documentation.

Timber harvesting and forestry activities must operate in accordance with ~~RSA 227-J:9~~.

Damaged structures may be repaired or replaced provided no change occurs to the existing footprint. If excavation is required an emergency authorization can be obtained from DES by calling (603) 271-2147.

Demolition Waste. Demolition waste is generated by the partial or total destruction of commercial or residential buildings. Demolition waste consists of wood, concrete, bricks, metal, glass, insulation, drywall, asphalt shingles and various other materials. The majority of demolition waste consists of wood, metals, concrete and brick. All of those materials can be recycled or reused and so should be managed in separate piles.

Wood that is not suitable for recycling or reuse can be processed as an ingredient in alternate daily cover for landfill use. All other demolition waste must be disposed of at a permitted solid waste facility. State law specifically prohibits the burning of even the clean wood portion of demolition waste. Metal has high value and can be sent to a scrap metal yard. Bricks may be intact and could be directly reused as bricks. Concrete and damaged bricks can be used as aggregate or fill for construction projects. Other materials for which there are no recycling options should be segregated and disposed at a landfill. The appendix contains a list of C&D processors, landfills and scrap metal recyclers.

Road and Bridge Materials, also normally part of the C&D materials stream, can be generated when roads and bridges are washed out or collapsed during disasters. Road and bridge materials typically consist of large amounts of asphalt pavement, concrete, and steel. All of these materials are frequently recycled in normal settings and recycling opportunities can usually be readily found. Asphalt and concrete can and should be used as aggregate in new construction. Steel should be sent to a metal recycler. These materials should not be brought to a landfill. As discussed in the demolition waste section, lists of C&D materials recyclers can be found in the appendix.

Automobiles may be ruined by many types of disasters. They are typically recycled under normal circumstances, so recycling opportunities exist in New Hampshire. Vehicles may have title and ownership issues before they can be scrapped. All fluids should be drained and managed in accordance with best management practices. Batteries, tires, gas tanks, airbags, and mercury switches should be removed and managed appropriately. Contact the New Hampshire Department of Environmental Services for a list of licensed automobile salvage yards that can accept scrap automobiles that contain fluids, www.des.nh.gov/SW/GreenYards/links.htm

White Goods. White goods are household appliances such as stoves, refrigerators, washers and dryers, and hot water heaters. These items can be segregated for recycling. Refrigerators and freezers require special attention because they may contain putrescible wastes, refrigerants, and capacitors containing PCBs. Refrigerant-containing appliances (RCAs), including refrigerators, freezers, and window air conditioner units, should be handled by EPA-certified refrigeration technicians or recycling centers to prevent releases.

The recycler must certify to EPA that certain standards are being met. The appendix contains a list of facilities that can handle refrigerant-containing appliances. Verify that the recyclers are meeting these requirements by asking them to provide a copy of the certification they have sent to EPA. EPA maintains a current list of approved refrigerant recyclers. Confirm the approval status of an RCA recycler by contacting EPA's Ozone Protection Hotline (800-296-1996) or by accessing EPA's Office of Air and Radiation Stratospheric Protection Division web page at www.epa.gov/ozone/title6/608/reclamation/reclist.html.

Putrescible Wastes (including animal carcasses) rot or decay quickly and should be segregated accordingly and quickly managed. This debris category includes fruits, vegetables, meats, dairy products and other produce from grocery stores, restaurants, schools, hospitals, and residences. It can also include animal carcasses. Some putrescible wastes can be composted or rendered. Most wastes in this category will have to be landfilled, however, vegetable waste can be composted with vegetative debris instead.

Dead Animals that have been killed in a natural disaster or disease outbreak can pose a significant public health threat. In the case of an animal health emergency, such as an outbreak of Foot and Mouth Disease where animal carcasses must not be allowed to leave the farm because of the highly infectious nature of the disease, burial of animal remains on-site does not require a permit from DES. However, the destruction and burial must be done under the direction of the N.H. State Veterinarian's office (www.nh.gov/veterinary/).

No specific setbacks are required, but the location of the on-site burial should be selected to maximize the distance from groundwater, surface water, bedrock, property lines and drinking water wells as much as practical. The location of all such burials should be noted on a site plan (sketch is acceptable) and submitted to DES together with a narrative describing the number and type of animals disposed. In the case of animals killed by a natural disaster, carcasses can be

landfilled along with other putrescible waste. As with other putrescible waste, dead animals must be segregated and managed quickly.

Infectious Waste such as needles, syringes and other potentially infectious materials should be identified in the field and only removed by trained personnel. After being properly containerized the materials should be taken to the hazardous waste staging area and handled with that waste stream.

Asbestos-Containing Material such as asbestos pipe wrap, siding, ceiling tiles, and other building materials, may be found in structures. As required by federal regulation as part of the National Emission Standards for Hazardous Air Pollutants (NESHAP), all commercially generated asbestos waste material destined for disposal must be accompanied by a Waste Shipment Record (WSR). The WSR must include the name, address and signature of the generator; the address where the waste was generated; the estimated quantity of asbestos being transported; the type of disposal container selected for use; and the disposal site location.

Once delivered to the disposal site, the form is to be signed by the facility operator indicating receipt of the waste, and a copy returned to the waste generator as evidence of receipt at the disposal site. *The only exception to this requirement is asbestos containing waste material generated at the residence of, and handled by, an individual homeowner.* To the extent that demolition or renovation activities are necessary in connection with any such facility, the requirements of the asbestos regulations under NESHAP may be applicable. This document does not address in detail the asbestos NESHAP requirements that apply to buildings/residences that remain standing or are partially standing and require further demolition. It also does not address debris management from renovations of buildings/residences.

Regulated asbestos containing material must be removed prior to demolition under the supervision of a person trained in accordance with the regulations. The material must be adequately wetted throughout the process and disposed of properly, which includes labeling, transportation requirements, tracking the waste, recordkeeping, and disposal in a landfill permitted to accept asbestos waste; see appendix. To the extent that an entity is dealing with debris from structures already demolished by a natural disaster (as opposed to human demolition), the requirements of the asbestos NESHAP (or the state equivalent) may not be applicable. If there is any question as to the applicability of the asbestos regulations, contact and coordinate with the Department of Environmental Services. No materials suspected to contain asbestos should be ground or incinerated at debris management sites (40 CFR 61.145(c)(10)). Contact the disposal facility ahead of time so that arrangements can be made for its proper management.

For further information

To report hazardous materials/waste and/or petroleum spills, please contact the New Hampshire Department of Environmental Services at 271-3899, Monday through Friday; and N.H. State Police at 271-3636 in the evenings or weekends.

For non-emergency inquiries regarding disaster recovery, please contact the Department of Safety, Homeland Security and Emergency Management Public Inquiry Line at 1-888-330-6764.

For questions regarding the information in this fact sheet, call DES at (603) 271-3503, Monday through Friday, or the Homeland Security and Emergency Management Public Inquiry Line at 1-888-330-6764 evenings and weekends.

Available Waste Management Facilities

Table 1
C&D Processing Facilities

Facility/Address	Waste Accepted	Contact
LL&S Wood Processing Facility 87 Lowell Road Salem, NH 03079	1) Demolition wastes, primarily wood. 2) Commingled Recyclables	David Lohnes Charles Nelson (603) 894-9800
ERRCO 270 Exeter Road Epping, NH 03042	1) Demolition wastes, primarily wood.	David Lohnes Charles Nelson (603) 894-9800

Table 2
Scrap Metal Recycling Facilities

Facility/Address	Waste Accepted	Contact
Advanced Recycling 25 Sandquist Street Concord, NH 03301	1) Scrap metals 2) Aluminum cans 3) Aluminum and Steel Turnings with or without oil 4) Used oil filters 5) Tires	
New England Metals Recycling 290 Knox Marsh Road Madbury, NH	1) Automobiles w/o fluids 2) Scrap metals 3) White goods 4) Lead acid batteries	
Harding Metals Route 4 Northwood, NH 03261-9738	1) Scrap metals	Joseph Harding (603) 942-5573/5574
B. Rovner & Company 18 Chagnon Street Manchester, NH 03102	1) Automobiles w/o fluids 2) Scrap metals 3) White goods	Tom Lynch (603) 623-0342
Ponderosa Salvage 78 White Birch Lane Epsom, NH 03234	1) Scrap metal 2) White goods 3) Lead acid batteries 4) tires 5) Used oil 6) Source separated recyclables 7) C&D debris	Rick Belanger (603) 736-6000
Advanced Recycling 211 Grissom Lane	1) Automobiles w/o fluids 2) Scrap metals	

Claremont, NH	3) White goods 4) Lead acid batteries 5) C&D debris	
SCRAP-IT 26 Monadnock Highway Marlborough, NH	1) Automobiles w/o fluids 2) Scrap metals 3) White goods	Tanya Minichiello (617) 212-8509
Gateway Resources 69 Lowell Road Salem, NH	1) Automobiles w/o fluids 2) Scrap metals 3) White goods	Charles Nelson (603) 894-9800
Scrap Metals, Inc East Glenwood Street Nashua, NH	1) Automobiles w/o fluids 2) Scrap metals 3) White goods	Steven Radel (508) 254-0394
Recycling Services, Inc Box 305, Industrial Blvd Claremont, NH 03743	1) Scrap metals 2) White goods 3) Lead acid batteries	James Silvers (603) 542-8755

Table 3
Commercial Transfer Stations

Facility/Address	Waste Accepted	Contact
CWM All Waste 40 LaBombard Road Lebanon, NH	1) C&D debris	Michael Viani (800) 883-8877
GDS Transfer Facility 264 John Stark Highway Newport, NH	1) MSW 2) Recyclables 3) C&D debris 4) White goods	Michael Viani (800) 883-8877
Allenstown Transfer Station 104 River road Allenstown, NH 03275	1) MSW 2) Recyclables 3) C&D debris 4) White goods	Michael Viani (800) 883-8877
MSW and Citizen Drop-off Facility 24 Grey Point Ave Auburn, NH	1) MSW 2) Recyclables 3) C&D debris	Steven Poggi (603) 330-2160
Bow Recycling Center 74 River Road Bow, NH 03304	1) MSW 2) Recyclables 3) C&D debris 4) White goods 5) Tires 6) Electronic waste 7) Scrap metal	Stanley Emanuel (603) 228-6900
Monadnock Disposal Service 100 Old Sharon Road Jaffrey, NH	1) MSW 2) Recyclables 3) C&D debris 4) Used oil	John Peard (603) 532-8088

	5) Tires	
C.M. Whitcher Transfer Facility Whitcher Hill Road Warren, NH	1) MSW 2) Scrap metal 3) Tires 4) Lead acid batteries	Christopher Whitcher (603) 764-5560

Table 4
Solid Waste Landfills

Turnkey Landfill	1) MSW 2) C&D debris 3) Special wastes 4) Asbestos	Steven Poggi (603) 330-2160
Mt. Carberry Landfill	1) MSW 2) C&D debris 3) Special wastes 4) Asbestos	Sharon Gauthier (603) 752-3342
NCES Landfill	1) MSW 2) C&D debris 3) Special wastes	Michael Viani (800) 883-8877
Lebanon Landfill	1) MSW 2) C&D debris 3) Special wastes 4) Asbestos	Marc Morgan (603) 298-6486
Nashua Landfill	1) MSW 2) C&D debris 3) Special wastes 4) asbestos	Jason Marcotte (603) 589-3410
Lower Mt. Washington Valley Landfill	1) MSW 2) C&D debris 3) Special wastes 4) Asbestos	Paul DegliAngeli (603) 447-3855